

# **BEYER WEAVER & THOMAS, LLP**

INTELLECTUAL PROPERTY LAW

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## **FACSIMILE COVER SHEET**

February 24, 2005

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Our Ref. No.: SUN1P275

Re: Application No. 09/641,035

Pages Including Cover Sheet(s): 04

### **MESSAGE:**

Dear Sir or Madam:

Please deliver the attached Statement of the Substance of the Interview to Examiner Kang.

Please enter this in the file.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re application of: David Wallman

Attorney Docket No.: SUN1P275/P4783

Application No.: 09/641,035

Examiner: KANG, Insun

Filing Date: August 16, 2000

Group: 2124

Title: METHOD AND APPARATUS FOR  
CACHING NATIVE CODE IN A VIRTUAL  
MACHINE INTERPRETER

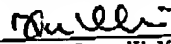
Confirmation No.: 3756

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I hereby certify that this correspondence is being facsimile transmitted to the Facsimile Number (703) 872-9306, United States Patent and Trademark Office on February 24, 2005.

Signed: \_\_\_\_\_

  
Susan W. Xu

**STATEMENT OF THE SUBSTANCE OF THE INTERVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the Interview Summary dated January 26, 2005, please enter the statement of the substance of the interview for the above-identified patent application as follows:

**Substance of the Interview begins on page 2 of this paper.**

**Substance of the Interview:**

Applicant presented the following remarks for discussion regarding Claim 1 of the pending application at the interview:

It should be noted that claimed invention provides interpreter code that copies native code corresponding to "just-executed" (i.e., interpreted) code into a code cache when a branch (Bytecode) instruction is encountered. Please note that the invention aims at avoiding Just-in-time (JIT) compilers by "adding interpreter code which labels code copied into the cache." (Specification, page 5, line 15 to page 6-line 5) Please note the proposed claim 1.

It is noted that *Walters* states that a branch instruction (B) flag can be set to true only for qualifying instructions that are branch instructions (*Walters*, Col. 10, line 25-27). It is further noted that a cross-compiler of *Walters* performs additional processing so as to minimize the native code instructions generated for non-native code conditional branch instructions by minimizing the number of native code instructions used to handle non-native condition codes. For instance, the cross-compiler of *Walters* determines whether a conditional branch instruction is the target of any other branch instruction(s) within a compilation window and whether it is immediately preceded by a comparison instruction. If the conditional branch instruction is the target of another branch instruction within the compilation window (or is an entry point instruction), and is immediately preceded by a comparison instruction, the cross-compiler converts the non-native comparison instruction into native instructions for generating and storing non-native condition codes, and converts the conditional branch instruction into a sequence of instructions for determining the status of the relevant non-native condition codes prior to performing a conditional branch (*Walters*, Col. 5, line 10-30).

Accordingly, it is respectfully submitted that *Walters* does NOT teach interpreter code (logic implemented into the interpreter itself) that copies native code corresponding to "just-executed" (i.e., interpreted) code into a code cache when a

branch (Bytecode) instruction is encountered, and executes code from the code cache when it encounters a branch instruction. As such, it is respectfully submitted that *Adams* does NOT teach the recited operations of claim 1 (*methodology depicted in Fig. 3*).

Agreement with respect to the claim was not reached.

Respectfully submitted,  
BEYER WEAVER & THOMAS, LLP



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